

PATENT
Attorney Docket No. 401612/ASAHINA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

AKIYOSHI et al.

Application No. Unassigned

Filed: March 21, 2002

For: WIRE ELECTRODE FOR WIRE
ELECTRICAL DISCHARGE MACHINE

Art Unit: Unassigned

Examiner: Unassigned

#5

T. BELL
8.19.02

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to the examination of the above-identified patent application, please enter the following amendments and consider the following remarks.

IN THE SPECIFICATION:

Replace the paragraph beginning at page 1, line 13 with:

41
In order to increase the machining speed, an example of a wire electrode for a wire electrical discharge machine, wherein core material (i.e., a core) is coated with a layer of Cu-Zn intermetallic compound, is disclosed in HITACHI CABLE REVIEW No. 18 (October 1999). A photograph of a cross section of this wire electrode is shown in Fig. 8. The figure is a magnification of a region near a surface of the wire electrode, wherein the coating layer of Cu-Zn intermetallic compound covering the core can be seen. In Fig. 8, the β phase of the intermetallic compound is seen in a string-like pattern and is surrounded by the α phase. Moreover, the outermost region of the wire electrode consists of only the α phase.

Replace the paragraph beginning at page 1, line 24 with:

42
The β phase, which has higher Zn concentration than the α phase, has an advantage of increasing machining speed, because the β phase easily evaporates through discharges to blow out object material. On the other hand, the β phase is brittle in a sense of metallography and has a disadvantage that there easily occur cracks during a cold wire drawing process in